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(54) **Method and system for displaying markup language based pages on handheld devices**

(57) A method and system for displaying an markup language based Web page on a handheld device having a relatively small display is disclosed. The method includes loading a Web page designed for viewing in, for example, SVGA resolution. The page is stored in a virtual memory (204) in the device in the form of horizontal and vertical pixels. The horizontal and vertical pixels are read from the virtual memory (204) in separate horizontal pixel

and vertical pixel bit streams. The horizontal pixel bit stream is fed through a horizontal pixel counter (206) that flag certain pixels for removal by a horizontal pixel filter (207). Similarly, the vertical pixel bit stream is fed through a vertical pixel counter (208) that flag certain pixels for removal by a vertical pixel filter (209). The remaining pixels are stored in a display memory (210) and are presented on the handheld device display (212).

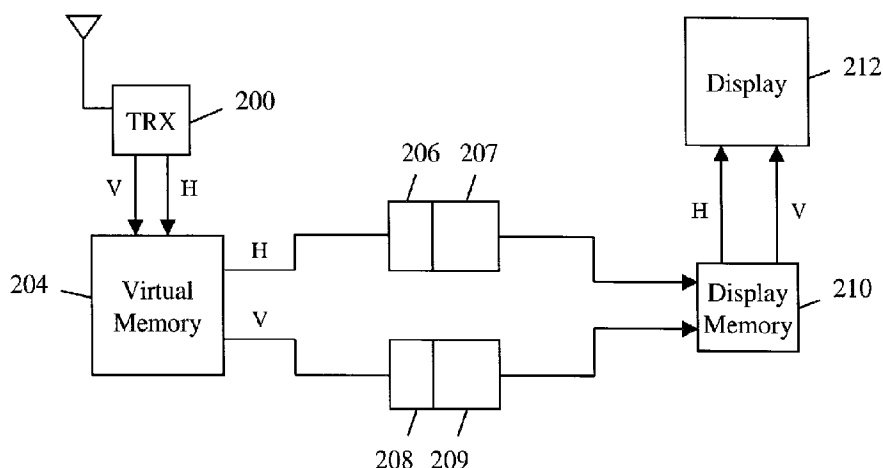


Figure 2



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 66 0085

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 5 025 315 A (JOHARY ET AL) 18 June 1991 (1991-06-18) * column 1, line 38 - line 43 * * column 1, line 54 - column 2, line 2 * * column 2, line 4 - line 7 * -----	1-11	INV. G09G5/00 G09G3/20
Y	GESSLER S ET AL: "PDAs as mobile WWW browsers" COMPUTER NETWORKS AND ISDN SYSTEMS, NORTH HOLLAND PUBLISHING. AMSTERDAM, NL, vol. 28, no. 1, December 1995 (1995-12), pages 53-59, XP004001210 ISSN: 0169-7552 * page 57, column 1, line 7 - line 9 * * page 54, column 1, line 7 - line 10 * * page 54, column 2, line 3 - line 5 * -----	1-11	
A	US 5 552 834 A (MATSUSHIMA ET AL) 3 September 1996 (1996-09-03) * figure 4 * * column 1, line 19 - column 1, line 23 * -----	1,7	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09G H04M
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 13 June 2006	Examiner Taron, L
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 66 0085

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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13-06-2006

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5025315	A	18-06-1991	NONE		

US 5552834	A	03-09-1996	JP	2705547 B2	28-01-1998
			JP	7170449 A	04-07-1995

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82